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NOTICE OF ALLOWANCE AND FEE(S) DUE

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Technology Center 2100

28395 7590 11/03/2004  
BROOKS KUSHMAN P.C./FGTL  
1000 TOWN CENTER  
22ND FLOOR  
SOUTHFIELD, MI 48075-1238

EXAMINER

JONES, HUGH M

ART UNIT PAPER NUMBER

2128

DATE MAILED: 11/03/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,537	12/20/1999	RONALD H MILLER	199-0516	3755

TITLE OF INVENTION: SYSTEM AND METHOD OF VIRTUAL FLOWBENCH SIMULATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370	\$0	\$1370	02/03/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail**

**Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
or Fax (703) 746-4000**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

28395 7590 11/03/2004  
**BROOKS KUSHMAN P.C./FGTL  
1000 TOWN CENTER  
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SOUTHFIELD, MI 48075-1238**

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,537	12/20/1999	RONALD H MILLER	199-0516	3755

**TITLE OF INVENTION: SYSTEM AND METHOD OF VIRTUAL FLOWBENCH SIMULATION**

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1370	\$0	\$1370	02/03/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
JONES, HUGH M	2128	703-001000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).  
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list  
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

## **3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)**

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

## **4a. The following fee(s) are enclosed:**

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

## **4b. Payment of Fee(s):**

- ☐ A check in the amount of the fee(s) is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

## **5. Change in Entity Status (from status indicated above)**

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.  
☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/468,537	12/20/1999	RONALD H MILLER	199-0516	3755
28395	7590	11/03/2004		
BROOKS KUSHMAN P.C./FGTL 1000 TOWN CENTER 22ND FLOOR SOUTHFIELD, MI 48075-1238				
			EXAMINER JONES, HUGH M	
			ART UNIT 2128	PAPER NUMBER
DATE MAILED: 11/03/2004				

## Determination of Patent Term Extension under 35 U.S.C. 154 (b) (application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

**Notice of Allowability**

Application No.

09/468,537

Examiner

Hugh Jones

Applicant(s)

MILLER ET AL.

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/9/2003; 11/26/2003; 6/21/2004.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☒ The drawings filed on 20 December 1999 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.


**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 7, 11, 6/21/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

HUGH JONES Ph.D.  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100



## DETAILED ACTION

### Introduction

1. Claims 1-24 of U.S. Application 09/468,537, filed 12/20/1999 are pending.

### Allowable Subject Matter

2. Claims 1-24 are allowed over the prior art of record.
3. The following is an examiner's statement of reasons for allowance: **PowerFlow™** (vol. 4.0, 1998) discloses the use of **PowerFLOW** at **Ford Motor Company**. **Ford Motor Company**, an early user of **PowerFLOW** for external flow aerodynamics and aeroacoustics studies, *has expanded its use of PowerFLOW to include internal flow applications*. Ford's Manufacturing and Vehicle Design Laboratory researches analysis tools that may help them produce advanced-engineered autos in a faster time frame. This department is using **PowerFLOW** to simulate internal flows through critical applications such as paint processes, water cooling jackets and engine transmissions. **PowerFLOW** is helping to optimize the design process as it effectively reduces meshing times to a fraction of what they were previously. Applicants admit (page 7, specification) that **POWERFLOW** automatically performs autogriding and simulation. **PowerFlow™** ("Fluid flow for competitive design"; see [http://www.com.pdf/Exa\\_Brochure 98.pdf](http://www.com.pdf/Exa_Brochure%2098.pdf) - 1998, numbered pages 1-11) disclose: transient and steady state analysis (pp. 3-4); user control over timesteps and measurements (pg. 3); fully automatic grid generation (pp. 4, 6); valve simulation (pg. 6); import templates (pg. 7); engine simulation (pp. 7, 11); interfaces with Nastran and Ansys (pg. 8); **PowerFlow™** does not expressly

Art Unit: 2128

disclose automatically terminating the simulation once steady state conditions have been reached in the simulation. Saleh et al. disclose terminating a simulation once the transient phase of a simulation has been completed and the steady state phase begun. See fig. 9 (# 90) and corresponding text. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the PowerFlow teaching to incorporate the feature of terminating the simulation once steady state conditions have been reached because 1) it is inherent that the simulation must be terminated at some point, 2) no new information would be gained by continuing the simulation and 3) expensive computational assets would be wasted if the simulation were to be continued. Official notice was taken that it would have been obvious to one of ordinary skill in the art at the time of the invention to terminate the simulation once steady state conditions have been reached because 1) it is inherent that the simulation must be terminated at some point, 2) no new information would be gained by continuing the simulation and 3) expensive computational assets would be wasted if the simulation were to be continued. Applicant's did not challenge the Official Notice and relied upon the Official Notice in their arguments re 112(1).

4. However, The prior art of record while disclosing the templates and their modification, does not disclose the generic template, ***as defined in the specification***, and its modification, ***as defined in the specification***.

5. Therefore, the prior art of record does not anticipate, render obvious or read on the claims and the claims do not read on the prior art.

Art Unit: 2128

6. Applicant's arguments filed 5/9/2003, 11/26/2003 and 6/21/2004 have been fully considered and they are persuasive.
7. Full faith and credit is given to applicants that they have fulfilled their duty to disclose.
8. The 112(1) rejections are withdrawn. The specification is enabled to the extent of the express teachings in the specification.
9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
10. Any inquiry concerning this communication or earlier communications from the examiner should be:

**directed to:**

Dr. Hugh Jones telephone number (703) 305-0023, Monday-Thursday 0830 to 0700 ET, *or* the examiner's supervisor, Jean Homere, telephone number (571) 272-3780.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist, telephone number (703) 305-3900.

**mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

Art Unit: 2128

(703) 308-9051 (for formal communications intended for entry) *or*

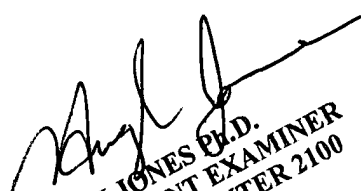
(703) 308-1396 (for informal or draft communications, please label "*PROPOSED*"

or "*DRAFT*").

Dr. Hugh Jones

Primary Patent Examiner

October 26, 2004



HUGH JONES Ph.D.  
PRIMARY PATENT EXAMINER  
TECHNOLOGY CENTER 2100





ORIGINAL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Group Art Unit:2123

Ronald H. Miller, et al.

Examiner: Hugh M. Jones

Serial No.: 09/468,537

Filed: December 20, 1999

For: **SYSTEM AND METHOD OF VIRTUAL FLOWBENCH  
SIMULATION**

Attorney Docket No.: FMC 1728 PUS (81051425)

**INFORMATION DISCLOSURE STATEMENT AND FEE  
UNDER 37 C.F.R. § 1.97(c) AND § 1.17(p)**

Mail Stop Amendment  
Commissioner for Patents  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

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JUN 25 2004

Technology Center 2100

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and § 1.97-1.98, the reference listed and identified on the attached Form PTO/SB08B is being submitted herewith for consideration by the Examiner. This Statement is being filed in accordance with 37 C.F.R. § 1.97(c), i.e., after the mailing date of a first Office Action on the merits but before the mailing of a final action or a notice of allowance. The associated fee in the amount of \$180.00 as set forth under 37 C.F.R. § 1.17(p) should be charged to Deposit Account 06-1510 (Ford Global Technologies, Inc.) A duplicate of this paper is enclosed for that purpose.

06/24/2004 EAREGAY1 00000055 061510 09468537

02 FC:1806 180.00 DA

**CERTIFICATE OF MAILING UNDER 37 C.F.R. § 1.8**

I hereby certify that this paper, including all enclosures referred to herein, is being deposited with the United States Postal Service as first-class mail, postage pre-paid, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, U.S. Patent & Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 on:

06/18/04  
Date of Deposit

Matthew M. Jakubowski  
Name of Person Signing

mat gale  
Signature

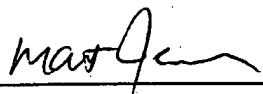
**BEST AVAILABLE COPY**

While this Statement is being filed in compliance with the duty of disclosure, citation of the attached references is not to be construed as an admission that any of the references are "material" as defined under 37 C.F.R. § 1.56(b).

If the filing date of this application is on or before June 30, 2003, a copy of each reference listed on the attached Form SB08B is included herewith. If this application was filed after June 30, 2003, copies of any cited U.S. patent/application references have not been included. Consideration and entry into the record of these references is respectfully requested.

Respectfully submitted,

**RONALD H. MILLER, et al.**

By:   
**MATTHEW M. JAKUBOWSKI**  
Reg. No. 44,801  
Attorney for Applicants

Date: 06/18/04

**BROOKS KUSHMAN P.C.**  
1000 Town Center, 22nd Floor  
Southfield, MI 48075-1238  
Phone: 248-358-4400  
Fax: 248-358-3351

JUN 21 2004  
PATENT & TRADEMARK OFFICE

Approved for use through 10/31/99. OMB 0651-0031

Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(use as many sheets as necessary)*

**Complete if Known****Application Number**

09/468,537

**Filing Date**

December 20, 1999

**First Named Inventor**

Ronald H. Miller et al.

**Group Art Unit**

2123

Examiner Name

**Hugh M. Jones**

Sheet

1

of

**1**

Attorney Docket Number

FMC 1728 PUS (81051425)

## OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner  
Initials \*

Cite No.1

Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.

T 2

PowerFLOW User's Guide, Release 3.0, copyright 1998.

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JUN 25 2004

~~Technology Center 2100~~

**Examiner  
Signature**

**Date Considered**

10/23/04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

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ATTORNEY DOCKET NO.  
066762.0103

SERIAL NO.  
09/468,537

1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Ronald H. Miller, et al.  
Serial No. 09/468,537  
Filing Date: December 20, 1999  
Group Art Unit: 2763  
Title: SYSTEM AND METHOD OF VIRTUAL FLOWBENCH  
SIMULATION

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MAY 15 2003  
Technology Center 2100

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Applicant respectfully requests, pursuant to 37 C.F.R. § 1.56, 1.97, and 1.98, that the reference listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified patent application. A copy of this reference is enclosed for the convenience of the Examiner. Furthermore, pursuant to 37 C.F.R. § 1.97(h), no representation is made that this reference qualifies as prior art or that this reference is material to the patentability of the present application.

05/13/2003 ZJUHA1 00000061 09468537

01 FC:1806

180.00 OP

PTO-1449

MAY 09 2003

Application No.  
09/468,537Applicant(s)  
Ronald H. Miller, et al.Information Disclosure Citation  
in an Application

066762.0103

Group Art Unit  
2763Filing Date  
December 20, 1999

## U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.						
B.						
C.						
D.						
E.						
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MAY 15 2003

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## FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
T.							

## NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
U.	R. Miller, et al., "A Comparison of Experimental and Analytical Steady State Intake Port Flow Data using Digital Physics", SAE Technical Paper Series 1999-01-1183, International Congress and Exposition, Detroit, Michigan, March 1-4, 1999, two cover pages and pp 1-8.	1999
V.		
W.		
X.		

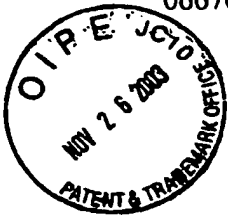
EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

ATTORNEY DOCKET NO.  
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SERIAL NO.  
09/468,537



1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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DEC 05 2003

Technology Center 2100

In re Application of: Ronald H. Miller, et al.  
Serial No. 09/468,537  
Filing Date: December 20, 1999  
Group Art Unit: 2123  
Title: SYSTEM AND METHOD OF VIRTUAL FLOWBENCH  
SIMULATION

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

"EXPRESS MAIL"  
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Date of Deposit November 26, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

*Willie Jiles*  
Willie Jiles

INFORMATION DISCLOSURE STATEMENT

Applicants respectfully request, pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, that the reference listed on the attached PTO-1449 form be considered and cited in the examination of the above-identified patent application. No representation is made that a search has been made, that the reference is material to the patentability of the present application, or that the reference qualifies as prior art. Copies of articles and foreign patents are being furnished.

12/03/2003 MAILING 00000055 09468537

01 FC:1806

180.00 DP

ATTORNEY DOCKET NO.  
066762.0103

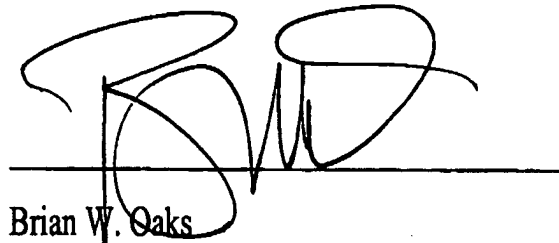
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REMARKS

This Information Disclosure Statement is being submitted pursuant to 37 C.F.R. § 1.97(c). The stipulated fee of \$180.00 is enclosed herewith. Please charge any fees or credit any overpayment to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,  
BAKER & BOTTS, L.L.P.  
Attorneys for Applicant

A handwritten signature in black ink, appearing to be "BW", is written over a horizontal line.

Brian W. Oaks  
Reg. No. 44,981

Date: November 26, 2003

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PTO-1449	Application No. 09/468,537	Applicant(s) Ronald H. Miller, et al.	
Information Disclosure Statement in an Application	066762.0103	Group Art Unit 2123	Filing Date December 20, 1999

## U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A.						
B.						
C.						
D.						

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
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F.						
G.						
H.						

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## NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
I.	R. Miller, et al., "A Design of Experiment Using Computation Fluid Dynamics for Spool-Type Hydraulic Valves," ASME International, pp. 325-334	2000
J.	R. Miller, et al. "High Performance Computing: Analytical Aerodynamics for Automotive Vehicles," ASME International, pp.289-298	1999
K.	R. Miller, et al., "CFD Simulation of Steady-State Flow Forces on Spool-Type Hydraulic Valves," SAE Technical Paper Series, cover page and pp. 295-307	1999
L.	G. Strumolo and V. Babu, "New directions in computational aerodynamics," Physics World, pp. 45-49	1997
M.	Exa Corporation, "PowerFlow Specifications," 4 pages	1998
N.	Exa Corporation, "PowerFlow Validation - Intake Ports," 3 pages	1999
O.	Exa Corporation, "About PowerFlow," 2 pages	11/26/2003
P.	Exa Corporation, "Frequently Asked Questions," 3 pages	April 1998
Q.	Fluent, "CFD for the Automotive Industry," 3 pages	
R.	Fluent, "Accelerate your design process," 6 pages	2003
S.	Fluent, "Flow Modeling for the Automotive Industry," 2 pages	11/26/2003
T.	Fluent, "Computer Simulation of Inlet Port Helps Improve Fuel Economy and Emissions," 3 pages	1999
U.	Fluent, "Simulation Helps Adapt Intake Manifold for Multiple Models, Saving Millions," 3 pages	2002
V.	Fluent, "Intake Valves," 1 page	2003

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



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